1. **(currently amended)** A method implemented in a CPT frequency standard of using an alkali metal vapor cell to determine the modulation index of a frequency-modulated laser source, the method comprising the steps of:

modulating the laser source at a given power and a given frequency;

passing the laser light from the modulated laser source through the cell; and

determining the modulation index of the laser source from the absorption spectrum of the alkali metal vapor,

the ~~value of~~determined ~~the~~ modulation index being subsequently employed to calibrate the laser source to run at a desired modulation index.

2. **(currently amended)** The method set forth in claim 1 wherein:

the absorption spectrum includes a plurality of minima; and

the modulation index is determined from the minima.

3. **(original)** The method set forth in claim 2 wherein:

a photodetector receives the laser light that passes through the cell; and

the minima are measured using the output of the photodetector.

4. **(original)** The method set forth in either claim 2 or claim 3 wherein:

in the step of determining the modulation index, the modulation index is determined using ratios of the minima.

5. **(original)** The method set forth in claim 4 wherein:

the modulation index is ambiguously determined using a ratio of first ones of the minima and disambiguated using a ratio of second ones of the minima.

6. **(original)** The method set forth in claim 4 wherein:

the minima include a primary minimum and a first satellite minimum; and

the modulation index is determined using the ratio of the primary minimum and the first satellite minimum.

7. **(original)** The method set forth in claim 6 wherein:

the minima include a second satellite minimum and a third satellite minimum;

the determination of the modulation index using the ratio of the primary minimum and the first satellite minimum is ambiguous; and

in the step of determining the modulation index, the ratio of the second satellite minimum and the third satellite minimum are employed to disambiguate the modulation index determined using the ratio of the primary minimum and the first satellite minimum.

8. **(original)** The method set forth in claim 4 wherein:

the minima include a first satellite minimum and a second satellite minimum; and

the modulation index is determined using the ratio of the first satellite minimum and the second satellite minimum.

9. **(original)** The method set forth in claim 8 wherein:

the minima include a third satellite minimum;

the determination of the modulation index using the ratio of the first satellite minimum and the second satellite minimum is ambiguous; and

in the step of determining the modulation index, the ratio of the second satellite minimum and the third satellite minimum are employed to disambiguate the modulation index determined using the ratio of the first satellite minimum and the second satellite minimum.

10. **(original)** The method set forth in claim 1 wherein:

in the step of modulating the laser source, the given frequency is approximately one half that of the hyperfine separation of the alkali metal vapor in the cell.

11. **(previously presented)** A method of calibrating a frequency-modulated laser source in a CPT frequency standard to run at a desired modulation index, the light from the laser source passing through an alkali metal vapor cell in the CPT frequency source and the method comprising the steps of:

1. modulating the laser source at a given power and a given frequency;

2. determining the modulation index of the laser source from the absorption spectrum of the alkali metal vapor; and

3. repeating steps 1-2 with different given powers until the determined modulation index is the desired modulation index.

12. **(original)** The method set forth in claim 11 further comprising the step of:

operating the laser source thereafter at the given modulation power that produces the desired modulation index.

13. **(original)** The method set forth in claim 12 wherein:

the CPT frequency standard automatically performs the method of claim 12.

14. **(original)** The method set forth in claim 13 wherein:

the method is performed upon initialization of the CPT frequency standard.

15. **(original)** The method set forth in claim 13 wherein:

the method is performed during normal operation of the CPT frequency standard.

16-23: (canceled)